Show-me Ratemaker Workshop

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Missouri Department of Natural Resources

Missouri Department of Natural Resources

Why Are We Here?

We cannot solve our problems with the same thinking we used when we created them.

Albert Einstein

Review the past,
Analyze the present,
Plan the future.

William Hendricks

Reality Check - The Top 5 Reasons You Now Want to Analyze Your Rates:

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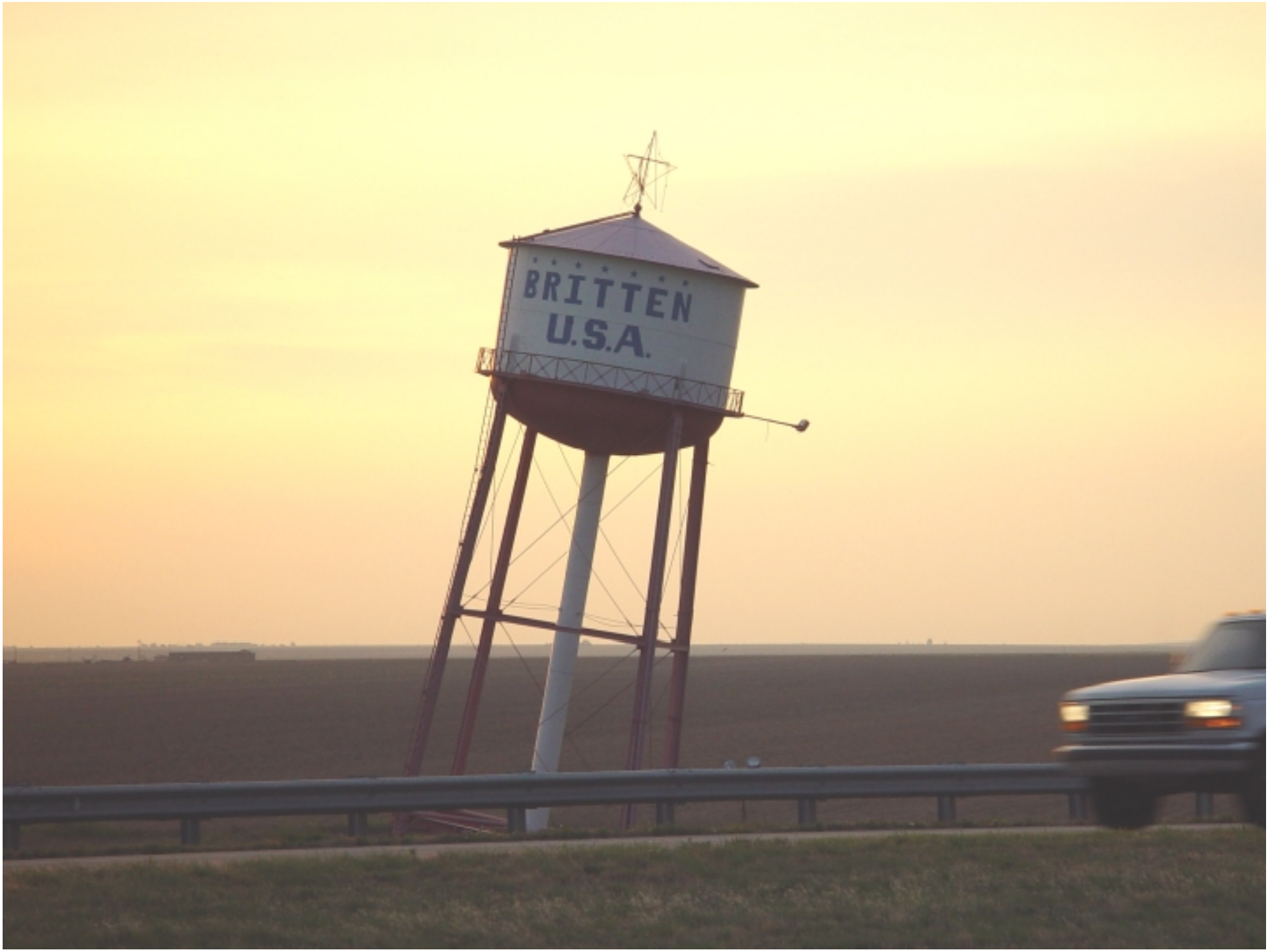
Reality Check - The Top 5 Reasons You Now Want to Analyze Your Rates:

5. The state is forcing you to upgrade your system and it is going to break you


BRITTEN
U.S.A.

Reality Check - The Top 5 Reasons You Now Want to Analyze Your Rates:

4. Your rates are very old and the system is going broke

5. The state is forcing you to upgrade your system and it is going to break you

Reality Check - The Top 5 Reasons You Now Want to Analyze Your Rates:

3. A big ticket item died and fixing it made your system go broke

4. Your rates are very old and the system is going broke
5. The State is forcing you to upgrade your system and it is going to break you

Reality Check - The Top 5 Reasons You Now Want to Analyze Your Rates:

2. You need grants and loans to keep your system from breaking down

3. Some big ticket item died and fixing it made your system go broke
4. Your rates are very old and the system is going broke
5. The State is forcing you to upgrade your system and it is going to break you

Reality Check - The Top 5 Reasons You Now Want to Analyze Your Rates:

1. If you raise rates for no good reason, the ratepayers will break your legs
2. You need grants and loans to keep your system from going broke
3. Some big ticket item died and fixing it made your system go broke
4. Your rates are very old and the system is going broke
5. The State is forcing you to upgrade your system and it is going to break you

Reality Check

Notice a theme?

The software will help you solve these problems. Just don't let it get that bad again.

Workshop Goals

- Show how and why to analyze your rates
- Show how to think about ratesetting
- Show how to use the Show-me Ratemaker software
- Show how to get follow-up help with your analysis

Introductions

- What is the Show-me Ratemaker software?
- Who am I?
- Who are you?

Show-me Ratemaker Workshops

- Missouri last 5 years in EMI, last 2 years as a stand-alone workshop
- New York last November (NY EFC doing workshops now)
- New Mexico in January and March (NM EFC is now doing workshops in NM & several states, too)

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Show-me Ratemaker Workshops

- Community Resource Group (Southern RCAP-covers south & southeast U.S.) in Arkansas in April
- Colorado, July (CRWA now doing workshops)

States Interested in Show-me Ratemaker Workshops

Florida, August

Vermont, December

New Hampshire, May, 2003

Massachusetts, June, 2003

States Interested in Show-me Ratemaker Workshops

Hawaii

Not yet, but We're working on them!!!

Workshop Agenda

- "TMF" and User charge analysis overview
- Show-me Ratemaker software overview
- Ratemaker demonstration and "what-if" scenarios
- Ratemaking and presentation strategies
- Workshop evaluations
- Adjourn
- One-on-one time

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Workshop Logistics

- Lunch
- Breaks and restrooms
- Phones, cell phones and pagers
- Materials and evaluations
- Software

Questions?

Stop us, slow us down,

Participate, participate, participate!

Humorous or true-life stories?

User Charge Analysis Overview

User Charge Analysis Motto

It's never too late - in fiction or in life - to revise.

Nancy Thayer

Writer

Carl's Motto

Everything is always a work in progress.

Carl E. Brown

Assistance Provider

Agenda

Introduction -- Why analyze?

"TMF 101" and how analysis fits in

What to analyze?

"Ratios 101"

Why Analyze?

Ask yourself these questions:

- Do our rates cover current costs?
- Will our rates cover future costs?
- Will we have money to handle repairs, replacements and unexpected expenses?
- Are our rates fair to our customers?

Why Analyze (cont.)

- Are we able to build new facilities?
- Are we going to apply for grants and loans?
- What if the economy, inflation and interest rates change?
- Is our population growing or declining?

Why Analyze (cont.)

In EPA's terms…

- What is our technical, managerial & financial (TMF) capacity today?
- How will it look in the future?

Or, in planner's terms…

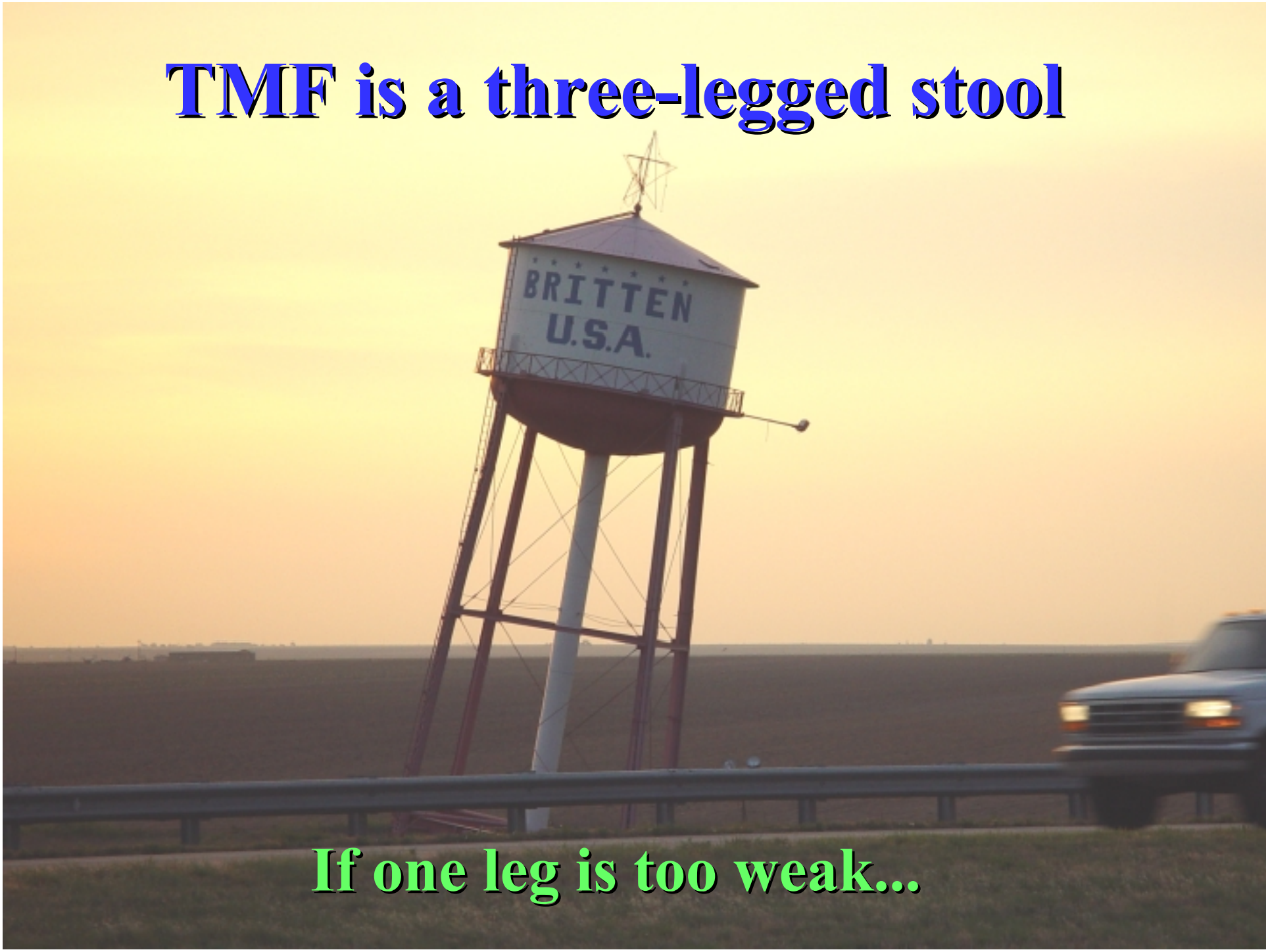
- Where are we?
- Where do we want to be?
- How do we get there?

What is TMF Assessment?

A look at your entire system

- Technical - hardware and people who produce the service
- Managerial - decision makers and staff who support technical
- Financial - the money that makes it happen

TMF is a three-legged stool



If one leg is too weak...

Who Can Assess TMF Capacity?

- Local government and district officials
- System operators
- Engineering and finance consultants
- Funding agencies
- Regulators
- Technical Assistance providers

Anyone can do it - easy to do using the available checklists

How to Do a TMF Assessment

TMF Checklist for water systems

MWPP Survey for wastewater systems

Both are available on EAO website at:

www.dnr.mo.gov/oac/lgov.htm

Steps to Building TMF Capacity

1. Analyze current operations and costs
   - Where are we?
   - Where do we want to be?
2. Improve current operations and reduce costs
3. Analyze rates, develop proposed adjustments
4. Build support for new rates
5. Adjust rates and track results

Steps to Building TMF Capacity

1. Analyze current operations and costs
2. **Improve current operations and reduce costs**
   - **How do we get there?**
3. Analyze rates, develop proposed adjustments
4. Build support for new rates
5. Adjust rates and track results

How can I "fix" or improve my system's Technical Capacity?

Determine:

- Is the system operating efficiently?
- Are staff operating proficiently?
- Does the system leak?
- Can we share staff, equipment with others or contract for services?

How can I "fix" my Managerial Capacity?

Build a support network

- Municipal officials and staff
- Citizens
- Software and print materials
- Consultants
- NERWA, State TA offices and other assistance providers
- Associations
- Other nearby systems

How can I "fix" my Financial Capacity?

Optimize revenues

- Bill all users, even hospitals, schools, churches, other government departments like police, city parks, public buildings
- Bill timely and accurately
- Surcharge high volume & peaking water and high-strength sewer users
- Watch for illegal tapping and meter by-passing
- Enforce collection and shut off policies
- Increase penalties

How can I "fix" my Financial Capacity?

Control costs

- Drop expense items that produce marginal returns
- Take advantage of economies of scale, participate in coops, etc.

Analyze and adjust rates regularly

How can I "fix" my Overall TMF Capacity?

Have another entity provide full service

Contract for:

- **Billing and collections**
- **Operation and maintenance**
- **Equipment rental**

Form a supplies purchasing co-op

Form an equipment co-op

Steps to Building TMF Capacity

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5. **Adjust rates and track results**

Types of Rates

"Proportional to use" rates are based on the volume of water or sewer service each customer receives (use neutral.)

"Cost to serve" rates are based on the costs that each customer or customer class causes the system to incur (use neutral.)

Types of Rates

- "Conservation" rates go up as volume usage goes up (encourage water conservation.)
- "Declining" rates go down as use goes up (encourage water consumption.)
- "Arbitrary" rates are ... arbitrary.

Why Might you Want "Proportional to Use" Rates?

- Tax vs. fee legal restrictions
- Grants and loans (past and future) may require proportional rates
- "Proportional to use" is simple to calculate and use, easy to understand
- Show-me Ratemaker Software generates them automatically

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Ratios 101

Operating ratio

Coverage ratio

Other key indicators

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Operating Ratio

$$\frac{\text{Total Operating Revenue}}{\text{Total Operating Expenses}} = \text{Operating Ratio}$$

Operating Ratio

Revenues include:

- User fees
- Hook-up fees
- Taxes
- Interest
- Cash carry over/ fund transfers
- Other revenues

Expenses Include:

- Administration
- Wages
- Benefits
- Utilities
- Supplies
- Other (non-debt) operating expenses

Operating Ratio

"Break-even" operating ratio is 1.0

Less than 1.0 and you are operating in the "red" (at least on paper).

- 1.15 -- for larger systems (>2,000 users)
- 1.35 -- for smaller systems (<1,000 users)
- 1.50 -- Moody's target ratio

- 1.20 -- for CDBG funding

Coverage Ratio

$$\frac{\text{Revenue Available for Debt Service}}{\text{Annual Debt Service Expenses}} = \text{Coverage Ratio}$$

Coverage Ratio

Banks, other lenders and bond buyers consider coverage ratio a good ratio of sound fiscal management

Less than 1.0, you can't pay your debt

- **1.25 is a common target**
- **1.90 Moody's target for high bond rating**

Affordability Index

- The percentage of annual median household income (AMHI) needed to pay for a utility service (water, sewer, etc.)
- CDBG looks for user fees >1.5 % of the average customer's AMHI

A Good User Charge Analysis Will:

- Help you plan and budget
- Show you your current and future financial status under various scenarios
- Help you develop new rates that are adequate and equitable
- Help you make grant and loan applications

A Good User Charge Analysis Will:

- Show you your affordability index, operating ratio, coverage ratio, other indicators
- Show you the rate effects of fixed and variable costs, R & R costs, interest rates, and inflation rates

A Good User Charge Analysis Will:

- Show you the annual annuity needed for repairs and replacements and allow you to build additional reserves, if desired
- Give you graphic illustrations for management decisions and public meetings ('Sell' itself)

Summary: Cost and Revenue Problems?

Step 1: Start short and long-term TMF assessment and make improvements


Step 2: Analyze

The Secret to a Great Analysis

Just do it.

Then, do it some more.

Analysis is something you learn as you go, and the product gets better as you work on it.

Questions?

Show-me Ratemaker Overview

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Agenda

Definitions

Getting around in the software

Getting to know the worksheet pages

Definitions

- Analysis year - the one-year period being analyzed, also called “last year”
- This year - the year following the analysis year - should be right now
- ‘Old’ debt expenses - those that show up in the analysis year
- ‘New’ debt expenses - those that show up after the analysis year

Getting Around

- Tabs
- Page up/down
- Mouse
- Highlighted and un-highlighted cells

Orientation to the Instructions, Worksheets and Tabs

- Page through the entire packet
- Instructions are organized by section, using the worksheet and tab names
- Instructions are set in same order as the worksheets
- Instructions serve as general tutorial and give detailed guidance on how to use the software

Worksheets in the Software

A. Instructions - read and follow

- Analysis procedure described here is "proportional to use" scenario first, other proposed scenarios next, "current" scenario last. Not logical, but most efficient.
- Analysis is done in "loops"
- Cell protection; you can't hurt software!

Worksheets in the Software

B. Water Customer Tally Sheet

- Print out and tally on paper

C. Customer Usage Profile - documents your volume usage

- Your first data entry sheet

D. Revenues vs. Customer Usage - documents your rate chart, starting balances and revenues

Worksheets in the Software

E. Repair and Replacement Schedule - shows planned R & R

- 20-year projection
- "In-between" priced items go in this schedule, normal maintenance items go in "Costs" worksheet, capital items in "Investments & Reserves" worksheet
- Total annuity from this schedule plugs itself into the "Costs" worksheet

Worksheets in the Software

F. Fixed and Variable Operating Costs - documents historical costs, used to project future costs:

- Fixed Costs
- Variable Costs
- Loading and Cost Allocation Calculations

Worksheets in the Software

G. Rate Setting - used for making your initial rate adjustments

- Costs automatically will move up or down with inflation and other adjustments
- This year's revenues will be "blended"
- Automated setting of "proportional to use" rates, manual for other rate structures

Worksheets in the Software

H. Costs and Revenues

- First of three five-year projection sheets
- Special input and adjustment cells
- Inflation factor cells
- "See Line 46 Instructions" on Net Operating Revenues line leads you to fix the problem if you are operating in the "red"

Worksheets in the Software

I. Capital Investments and Reserves

- Five-year projection
- Fund sources, uses and debt repayment
- Scheduling of projects, funding, repayment of 'new' debt

Worksheets in the Software

J. Financial Capacity Indicators - depicts the "bottom line"

- Five-year projection
- Affordability index, ratios, balances and their trends

K. Informational tables, and pie and bar charts

Questions?

Live Show-me Analysis With "What-if" Scenarios

City of "Verdant" example - follow in the paper worksheets

Audience participation time:

- Questions & discussion
- Suggest situations to depict

Questions?

Rate Setting Strategies

1. Analyze frequently.

Rate Setting Strategies

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2. **Make small but frequent rate adjustments.**

Scheduled Humor Break

Rate Setting Strategies

1. Analyze frequently.
2. Make small but frequent rate adjustments.
3. **If rates have not been adjusted for years before you recently arrived, be brave. Blame your predecessor, then propose one, or a short series of rate adjustments that will quickly get the rates where they should be.**

Rate Setting Strategies

4. Account for all utilities and municipal services separately; do not take in water revenue and spend it on sewer service, streets or other things.

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5. **Do the right thing, and be seen doing the right thing.**

Rate Setting Strategies

4. Account for all utilities and municipal services separately; do not take in water revenue and spend it on sewer service, streets or other things.
5. Do the right thing, and be seen doing the right thing.
6. **Develop your TMF and show the ratepayers that strong TMF is needed to serve them as they desire.**

Rate Setting Strategies

7. Clearly demonstrate the need for adjustments, comparing proposed rates to the "do nothing" or current rates alternative.

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8. Abide by your open meetings/records law.

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9. **Keep it a fee, not a tax.**

Rate Setting Strategies

7. Clearly demonstrate the need for adjustments, comparing proposed rates to the "do nothing" or current rates alternative.
8. Abide by your open meetings/records law.
9. Keep it a fee, not a tax.
10. **Use generally accepted accounting principles. (Don't "do an Enron".)**

Presentation Strategies and Tools

1. Get people informed! If you have a meeting, publicize it well and get people to attend.
2. Present your analysis using the software "live" if you're savvy and brave. Resize the worksheets so they will be easier to read when projected.
3. If you can't present "live," make color overheads of all the tables and charts and have them ready to show, if needed.

Presentation Strategies and Tools

4. Present only those tables and charts which will demonstrate your points and that you can explain well.
   - Beware of information overload. When people get overwhelmed, they want to reject whatever the proposal is.

Presentation Strategies and Tools

5. Clearly demonstrate the need for adjustments.
   - Show the current rates (the "do nothing") scenario first, so people have a basis to consider your proposed rates.
6. Make it clear you are doing cost, revenue and rate projections, <u>not politics</u>.

Presentation Strategies and Tools

7. If you are employed by the community, have an outsider on hand to help answer questions or even present the analysis if they can. Ratepayers may perceive you as just wanting to get more of their money (playing politics.)

For Technical Assistance

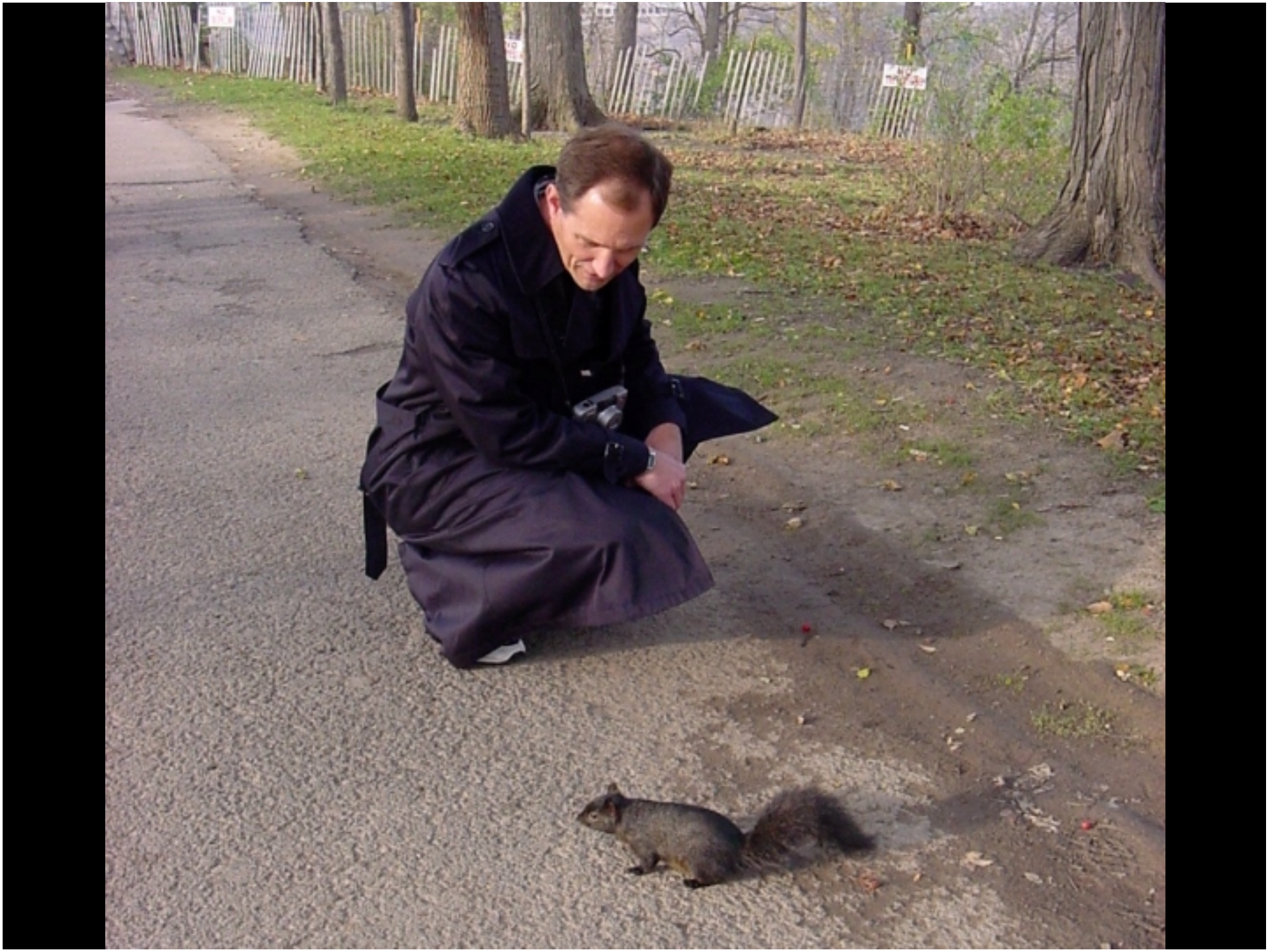
Environmental Assistance Office

- Show-me Ratemaker Software and workshops on our Home page:
  www.dnr.mo.gov/oac/lgov.htm
- Call EAO at 1-800-361-4827

Other agencies (RPCs, MAP, etc.)

Private consultants/engineers

Evaluations
Certificates



Fed-Up
With Boys

Summary

Analyze whenever there is any big change but at least every two years, every year is better.

As Nike says,

Just do it.

Then, do it some more.

It really does get better.

Thanks for attending the Show-me Ratemaker Workshop

Now, go forth and analyze!

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Postscript

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What is TMF Capacity?

- EPA defines a system's capacity as "the ability to plan for, achieve, and maintain compliance with applicable standards now and in the future." [SDWA]
- System capacity merges Technical, Managerial and Financial aspects [TMF]
- Required for SRF eligibility; recommended by other funding sources

How can I "fix" my Technical Capacity

Start a meter testing and replacement program

- Replace residential meters every 8-10 years
- Replace larger meters more often

How can I "fix" my Technical Capacity

Spot check meters for working condition

Replace old meters - new meters are:

- **more accurate**
- **easier to calibrate**
- **easier to repair**

Use correct size meter for each customer - not too big or small

How can I "fix" my Technical Capacity (Wastewater)

Find sewer line inflow and infiltration sources

- Compare water supply volume figures to wastewater influent volume figures during dry and wet weather
- Smoke test and video sewers
- Show-me software will show you how much I/I is costing you

How can I "fix" my Technical Capacity (Water)

Find water leaks and losses

How much (ball park) is acceptable?

- If you produce your own water, your loss should be less than 15% of the water you draw.
- If you buy treated water, your loss should be less than 10% of the water you buy.
- Show-me software will show you how much water loss is costing you.

Information you Need for an Analysis

- Current chart of rates, charges, surcharges, hookup fees, etc.
- Actual operating and debt expenses for past 12 months (the analysis year)
- Water losses or sewer system infiltration/inflow for past 12 months
- Account balances at start of the past 12 month period
- Customer volume usage (billed amounts) for past 12 months, 3 winter months for sewer

Information you Need for an Analysis

- Total actual water produced or sewage treated for past 12 months (to determine water loss or I/I)
- Repair and replacement schedule for next 20 years
- Capital improvement planned expenses for next 5 years
- Growth rate projection for your community for next 5 years

The Law and Fees

Hancock Amendment to the Missouri Constitution

- Fees can be raised without an election (vote of the people), taxes cannot.

Sunshine Law

- Neglect it and you can be sued and your rate increases can be voided.

Some Things you Need to Know

- Good rate structures are based on good budgets and good customer records.
- Arbitrarily adding $3 to every bill seldom results in fair and equitable rates.
- Customers and citizens should know why rates are set as they are. By performing the analysis, you can tell them.

Some Things you Need to Know

Rate structures should be easy for customers and citizens to understand, and for you to administer and defend.

Fee policies should be in writing and enforced.